

White Bros., Inc.
Cumberland County
Westbrook, Maine
A-804-71-C-R/A (SM)

) Departmental
) Findings of Fact and Order
) Air Emissions License

After review of the air emission license renewal application, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

1. White Bros., Inc. has applied to renew their Air Emission License, permitting the operation of their Westbrook, Maine aggregate processing (crushed rock and gravel) facility.
2. This renewal will also include an amendment to include two diesel units that were inadvertently over-looked for inclusion in the facility's previous air emission license.

B. Emission Equipment:

Rock Crushers

<u>Designation</u>	<u>Power Source</u>	<u>Process Rate (tons/hour)</u>	<u>Control Device</u>	<u>Date of Manufacture</u>
Primary Jaw	Diesel Generator	210	Spray Nozzles	1985
Secondary Cone	Diesel Generator	210	Spray Nozzles	1972

Diesel Unit

<u>Equipment</u>	<u>Max. Capacity (MMBtu/hr)</u>	<u>Power Output (HP)</u>	<u>Fuel Type, % sulfur</u>	<u>Max. Firing Rate (gal/hr)</u>
Diesel #216	2.1	291	Diesel, 0.05%	14.9
Diesel #218	2.2	400	Diesel, 0.05%	15.6
Diesel #220	1.3	205	Diesel, 0.05%	9.2

C. Application Classification

White Bros., Inc. is a licensed source with equipment that has not been addressed in the facility's previous air emissions licenses. The license renewal shall include the operation of the previously unlisted equipment. Therefore, the application for White Bros., Inc. is considered to be a renewal and amendment application. With the fuel limit on diesel units, the facility is licensed below the major source thresholds and is considered a synthetic minor.

II. BEST PRACTICAL TREATMENT

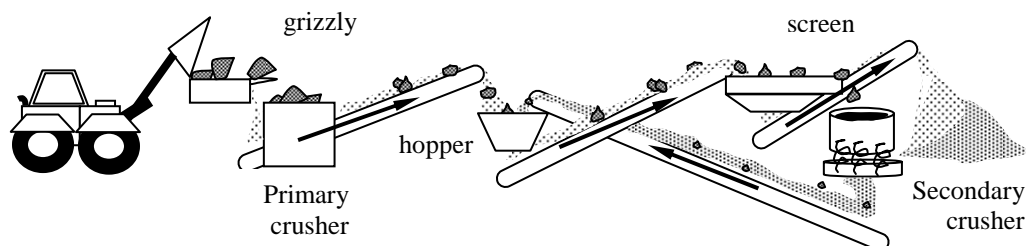
A. In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in Chapter 100 of the Bureau of Air Quality regulations. BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology,
- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in Chapter 100 of the Air Regulations. BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

B. Process Description

At the start of the process, uncrushed material is introduced into a hopper by means of a front end loader. A grizzly removes small rocks and dirt, which fall through onto the conveyor belt below. The large rocks enter the primary crusher. After passing through the primary jaw crusher, the once-crushed material is combined with the smaller material from the grizzly. The material enters a second hopper, where conveyors move it onto a screen. Material already crushed to size drops out the bottom of the screen and is conveyed to the finish pile, while oversize material passes through the secondary cone crusher, back to the hopper, and repeats the closed loop. White Bros., Inc. controls particulate matter generated through the process with water sprays on both its primary and secondary crushers, and at the transfer point at the second hopper.



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C. Rock Crushers

White Bros., Inc. operates two rock crusher units, a primary jaw and secondary cone rock crusher, at their Westbrook quarry. The primary and secondary rock crushers were manufactured in 1985 and 1972, respectively and have production capacities of 210 tons of aggregate per hour (tons/hr) each. The primary and secondary rock crushers are subject to EPA New Source Performance Standards (NSPS) Subpart OOO for Nonmetallic Mineral Processing Plants manufactured after August 31, 1983, with capacities greater than 150 tons/hr for portable plants and greater than 25 tons/hr for non-portable plants.

As a requirement of NSPS Subpart OOO, White Bros., Inc. was required to perform a visible emissions performance test (EPA Method 9) on the facility's crusher units. Method 9 observations were undertaken on May 13, 2004 for the secondary (cone) crusher and October 10, 2003 for the primary (jaw) crusher showing compliance with the facility's air emission license.

The regulated pollutant from the rock crushers is particulate emissions. To meet the requirements of Best Practical Treatment (BPT) for control of particulate matter (PM) emissions from the rock crushers, White Bros., Inc. shall maintain and operate water sprays on the rock crushers and at transfer points in the crushing process at the Westbrook quarry in such a manner as to control visible emissions to no greater than 10% opacity on a 6-minute block average basis.

D. Diesel Units

White Bros., Inc. was previously permitted to operate a diesel generator unit, designated Diesel #216, as power source for the primary and secondary rock crushers. Diesel #216 has a maximum design horsepower output rating of 200 horsepower (hp). White Bros., Inc. also operates two other diesel units, designated Diesels #218 & #220, as power sources for the facility's crushing operations. Diesels #218 & #220 have maximum design horsepower output ratings of 400 hp and 205 hp, respectively.

BPT for Diesel #216, as established in the facility's previous air emission license (A-804-71-A-N), shall be the restriction of firing only diesel fuel oil with a sulfur content of no greater than 0.05% sulfur by weight based on a twelve-month rolling total. Because Diesels #218 & #220 are considered new equipment, an application of Best Available Control Technology (BACT) is required. BACT for the newly licensed diesels shall be met with the restriction of firing diesel fuel with a sulfur content of no greater than 0.05% sulfur by weight in the two units.

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White Bros., Inc. was previously restricted to a total annual facility fuel use limit of 30,000 gallons per year. White Bros., Inc. has not proposed a change in the facility's fuel limit, therefore, White Bros., Inc. shall continue to be restricted to firing no greater than 30,000 gallons per year of diesel fuel oil based on a calendar year in the facility's diesel units. To demonstrate compliance with the fuel restrictions, White Bros., Inc. shall maintain a record of fuel oil purchases, which shall include receipts indicating the amount of fuel delivered and certification from the supplier indicating the sulfur content of the purchased fuel.

A summary of the BPT/BACT analysis for Diesel #216/Diesels #218 & #220 is as follows:

1. BPT/BACT is the use of diesel fuel with a sulfur content of no greater than 0.05% by weight.
2. BPT/BACT for PM for the diesel unit is 0.12 lb/MMBtu. PM₁₀ emission limits are based on PM limits.
3. NO_x, CO and VOC emission limits are based on AP-42 data dated 10/96.
4. Visible emissions from the diesel unit shall not exceed 20% opacity on a six-minute block average except, for no more than 2 six-minute block averages in a 3-hour period.

E. Fugitive Emissions

Visible emissions from potential sources of fugitive particulate matter emissions, including material stockpiles and unpaved roadways, shall not exceed an opacity of 20 percent, except for no more than 5-minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual 15-second opacity observations which exceed 20 percent in any 1-hour.

F. Facility Emissions and Fuel Use Caps

- Total fuel use in the diesel units shall not exceed 30,000 gal/year of diesel fuel, based on a twelve-month rolling total, with a maximum sulfur content of no greater than 0.05% by weight.

Total Licensed Annual Emissions for the Facility
(used to calculate the annual license fee)

Pollutant	Tons/Year
PM	0.64
PM ₁₀	0.64
SO ₂	0.11
NO _x	9.06
CO	1.95
VOC	0.72

III. AMBIENT AIR QUALITY ANALYSIS

According to Chapter 115 of the Maine Air Quality Regulations, the level of air quality analyses required for a minor source shall be determined on a case-by-case basis. Based on the information available in the file, and the similarity to existing sources, Maine Ambient Air Quality Standards (MAAQS) will not be violated by this source.

ORDER

Based on the above Findings and subject to conditions listed below the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-804-71-C-R/A, subject to the following conditions:

STANDARD CONDITIONS

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions.
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115.
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both.
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request.

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- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. § 353.
- (6) The license does not convey any property rights of any sort, or any exclusive privilege.
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions.
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request.
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license.
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license.
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
 - (i) perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
 - a. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
 - b. pursuant to any other requirement of this license to perform stack testing.
 - (ii) install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and

- (iii)submit a written report to the Department within thirty (30) days from date of test completion.
- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
- (i) within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
 - (ii) the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
 - (iii)the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.
- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement.
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation.
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status.

SPECIFIC CONDITIONS

(16) Rock Crushers

- A. White Bros., Inc. shall maintain spray nozzles on the primary cone and the secondary jaw rock crushers and operate the spray nozzles as necessary so as not to exceed visible emissions limits. Visible emissions from the crushers shall be limited to no greater than 10% opacity on a 6-minute block average basis. [MEDEP Chapter 101]
- B. White Bros., Inc. shall maintain a log detailing the maintenance on the water spray nozzles. The maintenance log shall be kept on-site at the rock crushing location. [MEDEP Chapter 115, BPT]
- C. White Bros., Inc. shall maintain a log detailing and quantifying the hours of operation on a daily basis for the primary cone and the secondary jaw rock crushers. The operation log shall be kept on-site at the rock crushing location. [MEDEP Chapter 115, BPT]

(17) New Source Performance Standards for rock crushers

The primary cone and the secondary jaw rock crushers, are subject to 40 CFR Part 60 Subparts A and OOO and White Bros., Inc. shall comply with the notification and record keeping requirements of 40 CFR Part 60.676 and Part 60.7, except for Section (a)(2) of 60.7 per Subpart OOO, §60.676(h).
[40 CFR 60, Subpart OOO]

(18) Diesel Unit

- A. Total fuel use for the diesel units shall not exceed 30,000 gal/year of diesel fuel, based on a calendar year, with a maximum sulfur content of 0.05% by weight. Compliance shall be based on fuel receipts from the supplier showing the quantity of fuel delivered and the percent sulfur of the fuel. Fuel use records shall be maintained on a monthly basis, in addition to the calendar year total. [MEDEP Chapter 115, BPT]
- B. Emissions from Diesel Generator #1 shall be limited to the following:

Equipment		PM	PM ₁₀	SO ₂	NO _x	CO	VOC
Diesel #216	lb/hr	0.6	0.6	0.1	9.0	1.9	0.7
Diesel #218	lb/hr	0.3	0.3	0.1	9.6	2.1	0.8
Diesel #220	lb/hr	0.2	0.2	0.1	5.5	1.2	0.4

[MEDEP Chapter 101, BPT]

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- C. Visible emissions from each diesel unit shall not exceed 20% opacity on a six-minute block average, except for no more than 2 six-minute block averages in a continuous 3-hour period. [MEDEP Chapter 115, BPT]
- (19) Stockpiles and Roadways
- Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed 20% opacity, except for no more than five minutes in any one-hour period. Compliance shall be determined by an aggregate of the individual fifteen-second opacity observations, which exceed 20% in any one-hour. [MEDEP Chapter 101]
- (20) Equipment Relocation [MEDEP Chapter 115, BPT]
- A. White Bros., Inc. shall notify the Bureau of Air Quality, by a written notification at least 48 hours prior to relocation of any equipment carried on this license. Written notice may be sent by mail, facsimile (fax), or e-mail. Notification sent by mail shall be sent to the address below or to a Department Regional Office:
- Attn: Relocation Notice
Maine DEP
Bureau of Air Quality
17 State House Station
Augusta, ME 04333-0017
- Equipment relocation notification can also be done on-line with e-notice at www.maine.gov/dep/air/compliance/forms/relocation.
- The notification shall include the address of the equipment's new location, an identification of the equipment and the license number pertaining to the relocated equipment.
- B. Written notification shall also be made to the municipality where the equipment will be relocated, except in the case of an unorganized territory where notification will be made to the respective county commissioners.
- (21) White Bros., Inc. shall pay the annual air emission license fee within 30 days of September 30 of each year. Pursuant to MRSA 38 353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for the revocation of the license under MRSA 38 341-D, Subsection 3.
- (22) White Bros., Inc. shall keep a copy of this Order on site, and have the operator(s) be familiar with the terms of this Order. [MEDEP Chapter 115]

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- (23) White Bros., Inc. shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard (MRSA 38 §605-C).

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF 2005.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
DAWN R. GALLAGHER, COMMISSIONER

PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

The term of this Order shall be for five (5) years from the signature above.

Date of initial receipt of application: **June 1, 2005**

Date of application acceptance: **June 5, 2005**

Date filed with the Board of Environmental Protection: _____

This order prepared by Peter G. Carleton, Bureau of Air Quality.